

+ + WHAT'S INSIDE + +

Page 2	Secretary's Report	Paul Hill, SINCUS
Page 3	<u>COMPUTUS INTRRUPTUS III</u>	Wes Brzozowski, SINCUS
Page 4&5	<u>News and Views</u>	Paul Hill, SINCUS
Page 5	<u>Update 2</u>	Wes Brzozowski, SINCUS
Page 6&7	<u>RUNNING THE UNRUNNABLE SPECTRUM PROGRAMS!</u>	Wes Brzozowski, SINCUS
Page 8	<u>TIMELY TIPS</u>	Wes Brzozowski, SINCUS
Page 9&10	<u>CONSTITUTIONAL CHANGES plus NOMINATIONS</u>	
Page 11	<u>ZK EXPRESS</u>	Gary Ennis, SINCUS

\* \* SINCUS ACTIVITIES \* \*

--CLASSES-- --MEETINGS-- --HARD/ZX81--

[Programming, etc.]	[Main Thing!:]	[Hardware+TS1000]
NOT AVAILABLE IN APRIL	WEDNESDAY <u>April 17</u> 7:00 PM Chase/First Bank	SATURDAY <u>April 27</u> 1:00 PM Vestal Library
We will schedule the programming class if YOU want it to continue!!	WEDNESDAY <u>May 15</u> 7:00 PM <del>Chase/First Bank</del> <b>SEE DETAILS INSIDE!</b>	SATURDAY <u>May ?????</u> 1:00 PM Vestal Library

The Executive Committee of SINCUS meets the first Hednesday of the month at the Vestal Public Library at 6:30 PM unless otherwise stated in advance. Any regular SINCUS member is welcome!

# SECRETARY'S REPORT



Wednesday, March 20, 7pm SINCUS held its regular monthly meet at the Chase/1st City Bank on the Vestal Parkway, Vestal, NY. 26 attending.

Gary Ennis started the meeting with the clarification of newsletter policy - 22 lines free per member - per annual subscription.

Nominations for society officers were opened to the floor and the following were nominated:

- President- Gary Ennis
- Vice-President- John Sims
- Treasurer- Glenn Wilson
- ‡ Recording Secretary- Paul Hill
- ‡ Financial Secretary- Wes Brzozowski
- Trustee #1-Dave Schoenwetter
- Trustee #2-Don Laen

‡ these positions are under proposal for change at the April meet.

The Computer Shopper offer was announced again-6 months for \$5, try it! you'll like it. Bring cash or check made out to Computer Shopper, to the next meet and we'll mail 'em off for you.

DEMO- Charlie Keoth's "the talking Gorilla Banana". We were treated to another very organized talk by Charlie, not only on the nuts and bolts on the how to's but the reasons why and how comes. Outside of the potential uses of speech being paired up with computers for games and education, there is also security uses, keep track of time, and the handicap could find many uses. Charlie's chip the SP0256 generates speech using allophones, 42 in the English language and pauses. The SP0256 uses 59 allophones and 6 different pauses in its chip. With the book "How to Make Your Computer TALK" by Steven J. Veltri, Charlie got into the basics of building speech. The sounds generated almost were recognizable the first time one heard them. By adding more pauses and slowing down the allophones the voice became understood-plus one's ears got atuned to its sound.

DEMO-the Sinclair Microdrive on a 2068/Spectrum with Zero IF by Wes Brzozowski-NOW-fast-priced reasonably-\$125 for the interface 1 and one drive. Wes researched all the alternatives and felt this to be best bang for the buck. If you can build the Zero IF, you probably be in the same price ballpark as the micro drives on the US market. On the British market there are books on the drive, lotsa software plenty of 3rd party support. I imagine if you are using disc on an IBM or similiar the Micro seems clunky-but after cassette tape anything is better.

demned his large print generator program. He showed some problems and cures for designing your own print faces. Apparently his two year old is learning the alphabet faster with the larger letters.

CLONE, as of yesterday still had the bug, but today, March 30 Wes came up with the answer that works on my set up-version coming out and copies will be available to all who bring in the first version. Apparently some signals get inverted by some tape recorders thus causing a loading problem. We thank you for your patience. ~~Corresponding members will be able to purchase CLONE for \$4.95 paid.~~ Any profits from this go back into the society to keep dues down, so the more sales the better you make out.

Welcome to new local members, Alan Pace, Dunsmore PA and Hubert Kessel, Binghamton, NY and to William MacDougall, Ottawa, Ontario; Phil McConaghey, Pembroke Pines, FL; Russell Miles, Sioux Falls, SD and John Constantine, Chapel Hill, NC. our new corresponding members!

On Saturday, March 23, 1985 the hardware class was held, the subject of photo-etching and copper plate etching was covered by yours truly as Glenn had to work at the last minute. Dennis Dale covered basic terms and concepts for beginning hardware putter together-ers. As a novice in breadboarding I strongly recommend wire wrapping- soldering and etching can come later!

Thursday, March 28, the programming class by Ennis and Sims was conducted at the Vestal Library. Gary covered arrays and Dim strings and John started into basic structured concepts of programming. To get us started in MC, the homework is to write a MC program to clear part of the screen.

Paul Hill  
Rec Secy  
SINCUS

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**MAY 15**

Part 3, by  
Wes Brzozowski, SINCUS

If you thought that this column's absence last month meant that it was over, you can think again! A brief bout of microdrive fever put it on hold for a bit, but *Computus Interruptus* is back, meaner than ever. There's still plenty to do and the name alone is too thoroughly horrible to waste on just two installments, so here we go!

First, the old business. We left off last time with a cryptic comment about that print screen program that we've just about beaten to death. Those who've tried to relocate the machine code to the same 16K memory block as the display file (16-32K) will notice that the quality of the picture degrades badly when it's running. The servicing of interrupt mode 2 confuses the hardware that generates the display, when both are trying to operate with the same memory chips. (The TS2068 memory from 16-32K is produced by two 16K x 4 chips.) As a result, the image on the screen contains a lot of "snow", although the snow isn't copied onto the printer picture.

While we're not on the subject, the last installment contained a comment suggesting that the use of pullup resistors in Spectrum emulators might not be as useful as I'd first expected. On the contrary, their performance has been spectacular, so far. More on that, in a bit.

Now, on to the questions!

#9. If relocating the print screen program makes a snowy picture, then why bother?

In three months, you'll be sweating, and wishing for snow, then you can... no, that's not it. Actually, it's amazing that such a short program is such a pain to relocate. It would be nice to find some little used "memory nook" to hide it in. This way, it probably won't try to occupy the same space as the other programs. It turns out that the TS2068 has several such nooks that are known to but a few. Timex's change to the Spectrum ROM has it lay out small sections of RAM that it never uses - - at all! They would have been used by some of the hardware add-ons that Timex never released, but now they're free for us to play with. Unfortunately, they're all in that "noisy" 16-32K memory block. If we relocate the print screen program into one of these areas, we'll have a "last resort" version that might work when the better version won't.

The relocated program will need to put a different value in the I-register (piece of cake). It will have to have a continuous 257 byte space for the kludge block, and that must start on a 256 byte boundary, (probably not too hard). The handler needs to start at a memory address whose first byte is identical to its second byte (tricky, but reasonable as long as you don't forget). And all of these have to be done at once, in one of the available "memory holes" (a head scratcher, but it can be done.)

-----  
 MOST SINCUS DUES ARE DUE IN  
 THE NEXT THREE MONTHS PLEASE  
 MAIL IN YOUR RENEWAL PROMPTLY

*JB*

3

RELOCATED PRINT-SCREEN LOADER

```

10 FOR J=23808 TO 24065: POKE
J,94: NEXT J
20 FOR J=24151 TO 24184: READ
K: POKE J,K: NEXT J
30 DATA 62,93,237,71,237,94,20
1,245,197,213,229,62,127,219,254
,246,224,254,252,32,6,243,6,192,
205,5,10,225,209,193,241,195,56,
0
40 RANDOMIZE USR 24151
    
```

The BASIC program given here places the print-screen program in an unused memory area that follows the system variables. This would have been used for new system variables and possibly for microdrive channels. In any case, the standard TS2068 never uses this area, so it's ideal for us. The only problem is screen snow.

Hopefully, this concludes our discussion of the print-screen program. Next time, if all goes well, we'll start contorting the interrupt handler to produce moving sprite graphics.

#10. What about the resistors on the Spectrum emulators?

They work great!! It's possible to produce programs that still don't work with them, but it seems right now that the main problem is in the hardware add-ons that weren't designed to work in conjunction with interrupt mode 2. Many programs that were once thought not to work with the resistors work fine, once that joystick, light pen or printer interface is unplugged from the back of the computer!

Now, a lot of people who'd be interested in this subject might miss it if it were buried in this article. Therefore, a full explanation is in a separate article in this issue. Just between us, it's a continuation of this series, but no one else need know. So, right now, turn to "Running Those Unrunnable Spectrum programs", and continue reading...

SINCLAIR'S TTV- tiny television

From People Weekly, Feb 18 '85... "This English manufacturer of cheap home computers uses the same kind of tube technology Sony utilized...tilt the picture tube so the rays do not shoot straight onto a flat screen; instead they are deflected onto a screen from an angle...Sinclair also declares that it is the first to squeeze all the TV circuitry onto one minute silicon chip, making this set smaller (5.5" x 3.5" x 1.25") and lighter (9.5 ounces) than other tube type sets. It also uses an unusual battery—a long thin and light Lithium Power Card made by Polaroid—that's supposed to provide 15 hours of play for \$5.25. Sinclair's TV has been on sale in Britain since last spring; it should be here this summer with a price around \$100. !!! note the power supply!!!



## NEWS and VIEWS

Long Island's LIST-another info filled issue-some is beyond me but there are programs, book reviews, hardware review of the A&J MicroDrive, how to modify a Spectrum to US standards, how to connect a TI keyboard to the 1000 and more on the Spectrum ROM by N.A. Pashtoon. Its in the library-if you want to subscribe-it is \$15 a year-LIST PO Box 438, Centerport, NY 11721-0438- in light of their quality of information it is money well spent!

Colorado-Mile High Chapter, Timex Sinclair Users Group, 914 S. Victor Way, Aurora, CO 80012 the following (edited and copied with much thanks to):

2068 System Variables Usage  
by Phil Basford

By using the systems variables many interesting and useful effects can be created for your programs.

REPDEL 23561 contains 35. Poking in 0 will stop the repeating key function. Poking in 1 makes the machine extremely difficult to handle thus creating an excellent program security device.

BORDER 23624 contains border color times 8. POKEing in an attribute number will change the paper and ink, etc of the lower screen. Border color will change to match the paper color the next time a key is pressed. POKEing in a flashing attribute just before a SAVE command in a program line gives added emphasis to the SAVE and can be very helpful when multi-SAVEs are used.

PROG 23635 & 23636 contains 86 and 104 respectively. CRASH if POKEd. PEEKing reveals start of program(26710). Peeking the program line numbers and poking the first down to 0 allows you to put an uneditable line in the first line to store data or a copyright. Complete programs can be protected from unauthorized copyright violations once you know where the elements of your program are in memory.

DF S2 23659 contains 2. POKEing in 0 and PRINTing on Lines 23 and 24 allows you to write on the lower part of the screen. But be aware that if 2 isn't POKEd back in right after the PRINT AT command-your program will CRASH!

SCR CT 23692 contains 1. POKEing with 24 and following 22 PRINTs in a loop simulates SCROLL in TS 1000 BASIC for motion in arcade type programs.

Some easy to use color control commands are not described on the user manual that makes it easier and more space economical to change INK, PAPER, FLASH, and BRIGHT in PRINT and LET statements as well as in program listings.

INK To change the INK color get the E cursor, then hold down the CAPS SHIFT key. While holding down press the key of the color you want for INK.

PAPER To change the PAPER color get the E cursor and press the color key of the paper you want.

FLASH To turn on the FLASH control get the E cursor and press the Caps Shift key and the nine (9) key. To turn the FLASH off get the E cursor, hold down the Caps Shift key and the eight (8) key.

BRIGHT To turn on the BRIGHT control get the E cursor and press the nine (9) key. To turn the BRIGHT off get the E cursor and press the eight (8) key.

If you use TRUE and INVERSE-Be sure that you do not try to edit these lines because the warning buzzer will sound. To prevent this make any program line that uses these controls as short as possible so that it can be rewritten entirely without using the EDIT key.

### PRINT and LET Statements

These controls can be used in PRINT and LET statements just as TRUE and INVERSE can be. Remember to stay inside the quotation marks when doing this and be sure to turn FLASH, BRIGHT and INVERSE off before closing the quote or the program listing will change to the characteristics that you have defined within the statement. The same holds true for color commands so you should change the INK and PAPER back to the program listing INK and PAPER before entering the line or you will have to retype the line because of the edit restriction.

When using LET and DIMensioned strings you must allow one character spaces for each color, FLASH, BRIGHT or INVERSE change whether on or off. That's because the machine uses two bytes to tell itself what control is in use and what the status of that control is.

This utility can also be used to highlight segments of the program listing by changing the characteristics at the end of the program line preceding the line or set of lines to be highlighted. Again remember to turn everything off at the end of the line of the highlighted area in your program.

I always wonder how the flashing entries got into the listings! Thanks for the bits of info, Phil Basford!!

TSS NEWSNOTES- January issue in library, and as I type this, Don Barnard calls me from Red Bank, TN and lets us all know that his next newsletter is in the mail and has Dave S.'s modem-patch update in it (atta boy Dave!) and of his idea of having a User get together in Chattanooga this summer-similar to my idea, see last month's note about a get-together in Atlantic City, NJ. If I get any response I'll head all his way. That's Don Barnard, TSS PO BOX 15214, Red Bank, TN 37415-0214 tele: 615-877-6328 Don stays in touch with many in the interest of getting up to date on what's happenings in the 2068 related world and publishes a monthly newsletter keeping his subscribers updated too-write for details. Dave Higgonbottom is still a news item, lotsa plans, and lotsa ideas but still no contract.



TIMELINEZ- January issue;The PLOTTER- March issue also in library, In the PLOTTER is a story about the END of a BBS. If you are into modems or thinking about one-read this for the care and feeding of a SYSOPS...

ABLEs...speaking of care and feeding, user groups are for the most part run by volunteers who depend on help from ALL the others be they novice or expert, be it a hello, an article or a helping hand with the mailing of the newsletter, INPUT is going to keep the USER groups going, if you just pay dues you aint a member, if you dont vote, or help or in some way share in the group some day soon there wont be user groups, BBS, newsletters software, businesses, etc, ... "The English Micro Connection", 15 Kilburn Court, Newport, RI 02840 has their #2 catalog out and list some very REASONable prices (they seem to remember that many of us who buy Sinclair did so because of the low price) and their Spectrum addons WORK as per our last demo of the Sinclair microdrive! and FAST. Listed are:(Spectrum/2068 and ZX Spectrum devices, see catalog for details), Disk IF-\$149.95;Monitors,RD Digital Tracer;Light pens;Printer-80col;Printer IF;Joystick/IF; AND SOFTWARE-assembler -Fifth-DLAN -Mega BASIC-"C"-PASCAL 4T-DEVPAC 3 and more more more. If you havent seen their catalog and prices you arent doing yourself any favors, and tell 'em SINCUS sent you.... " hear the new Prez of Apple says that there aint a HOME computer and that there never was one and that is why so many HOME computer companies went on the rocks."... HOME use of a computer has NEVER been clearly defined by anyone. It is a very hi-tech learning tool, and a very expensive toy and a decent tool for those who have a small business at a decent price. HOME means mass market, easy to use as a car, cheaper

a telephone and as useful as a car or a telephone. We have microcomputers now, and we can use them with quite a bit of training, but for what around the house? I'd like to hear from anyone one who uses the computer around the house on a non-business application. Does it truly save you time?, How much and at what cost? Is it worth it? I am all for the computer, but I use it to learn about computers and I want to know what is there the average non-techie can do with the HOME computer but shot down space invaders? (I need the info to justify getting disc or micro drives, color monitor and modem and the full size printer) and boy with that then I could. ...ah? Here I am a non-techie, a novice in programming and I've the ZX81 kit and the 2068/2040 and want to get more goodies. My Dad has been in electronics since before radio and with computers since before 1955 and he doesn't have a computer or even a programmable calculator. He uses a long white stick called a 'slide rule'-non electronic even, writes everything in pencil, erasable yet and non-magnetic. And to top it off he still seems happy to this very day! Takes all kinds I guess.(he is looking for one good reason too!!)

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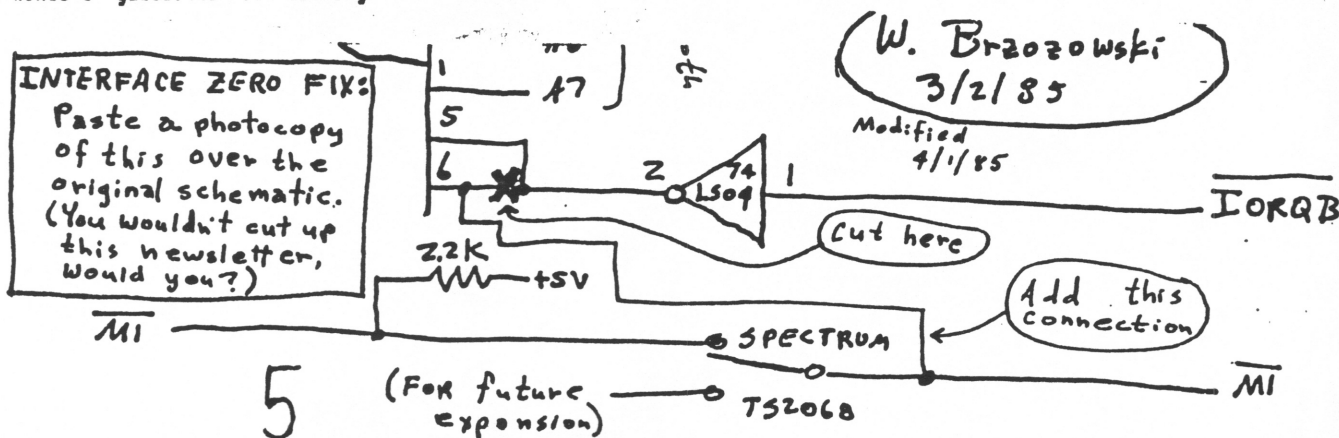
## Updates #2

by Wes Brzozowski, SINCUS

Those who howled at my refusal to disclose a resistor value in my *Interface Zero* article can calm down now. The value I use is 18 ohms, 3 watts. I still have no assurance that this is the best value, as I got mostly complaints and very little help, but that value works fine for me. Without it, the regulator will get quite hot (160 degrees) after the microdrive has been FORMATTed about 5 times. With the resistor, it barely gets warm. I still don't know if it's large enough to cause problems if the power supply is heavily loaded though, so this resistor value may not be the final one. Come on, write and tell me about your results...

Last time I mentioned that one vendor had dropped the price of the 8K x8 RAM chips used in my ARDS/LRDS Development Board to about \$13.00. Now they're down below nine bucks apiece. If you are looking for a good project...

Lastly, here's a little modification to my *Interface Zero* circuit. The circuit will work fine without the change, but this fix is consistent with the new development that's turned up in the quest for the "Running Those Unrunnable Spectrum Programs", as explained in this issue's article by that name.



# SPECTRUM Programs

by Wes Brzozowski  
SINCUS

Those who use Spectrum emulators with their TS2068's know that there is a small percentage of "troublesome" Spectrum software. This stuff can tell that it's not really in a Spectrum and usually complains by crashing the computer.

Readers of this newsletter have known for a while (SINCUS NEWS, Jan 1985, page 8) that putting 10k pull-up resistors on data lines D0, D1, and D7-D7 will correct this problem. Following this, Doug Dewey has installed these resistors on his Omni Emu, making his product probably the most versatile emulator available. (I've tried the Omni-Emu, by the way, and I recommend it highly if you intend to buy rather than build an emulator.) The easiest way to start, then, is to get an Omni-Emu. If you have an older "resistorless" Emu, or if you have or plan to get a different emulator method, I'll discuss ways of installing the resistors later. Shortly after people began installing the resistors, contradictory results began coming in. Some people managed to get certain "unrunnables" to work, while others still had no success. At present, it appears that peripheral devices plugged into the back of the computer are causing the problems. (This has been known to happen in true Spectrums, as well.) As strange as it all may seem, the explanation is quite reasonable. Every sixtieth of a second the computer stops what it's doing by means of a process called an interrupt. Normally this causes the keyboard to be scanned and the system variable FRAMES to be incremented. This interrupt can conveniently be diverted to do other things however. The means to do this were described in the same SINCUS NEWS article that first mentioned the resistors. Suffice it to say that when the interrupt occurs, the Z80 signals M1 and IORQ both go low "tells" external hardware to place certain important information on the data bus. On a Spectrum, that external hardware consists of eight pull-up resistors so the computer reads in all ones (hex FF) at that time. The TS2068 has only one resistor on D2, so the data bus can do many wild and crazy things during an interrupt. In any case, the extra seven pull-up resistors place FF on the 2068 data bus, in true Spectrum fashion. Their presence doesn't seem to interfere with the normal operation of the TS2068; rather their absence allowed Timex to save a couple of pennies. With the resistors in place, the odd Spectrum program that demands to see an FF on the data bus during an interrupt won't be disappointed. It will be effectively fooled into thinking it lives inside a real Spectrum. Unfortunately, certain peripheral devices plugged into the rear connector (of a TS 2068 or a Spectrum) can cause problems. In their normal operation, a low on IORQ and the proper pattern on the address bus will cause them to go active. This is really a hardware bug in the peripherals. When an interrupt is processed, IORQ is active, and the state of the address bus is somewhat unpredictable. If the peripheral is accidentally activated, and puts something other than FF on the bus, you're in trouble. A properly designed peripheral should not function unless M1 were high, but most don't even use this signal!

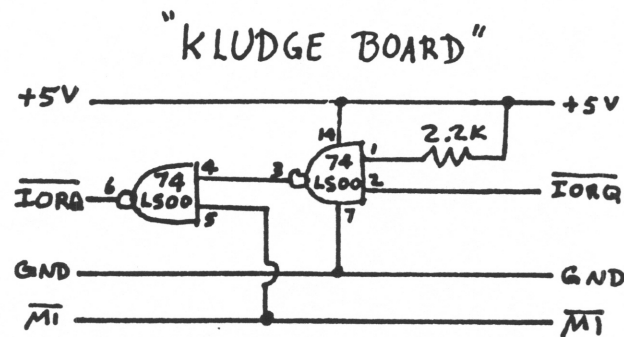
Lest the reader think I'm being unduly harsh on others, note that I also point the accusing finger at myself. The "Updates" column in this issue contains a slight redesign to my

Interface Zero microdrive interface for this very purpose. Also, Doug Dewey has sent me one of his EMU-3 parallel printer interfaces, to be rebuilt to fix the problem. The corrective surgery for either is so slight that it will leave almost no evidence, but it will do the job fine.

It's my opinion that the best solution is to fix the peripheral, but this isn't practical for everyone. The other obvious solution (unplugging the peripheral) is not much of a solution at all. Another method that some have used with success is to add a buffer circuit that forces an FF onto the data bus whenever IORQ and M1 are both active. This initiates contention between the buffer and the peripheral, and only works if the buffer is the "stronger" of the two. This could damage the peripheral; don't do it!

For those who want to add a hardware fix, I'd like to speculate on a better solution. I don't intend to build one, but I'll give enough information for some "hardware minded" readers to develop it and report on the results. This will involve building a small "Kludge board" that plugs in between your computer and other peripherals. It will "gate out" the IORQ signal when M1 is active. This would not allow the peripherals to detect when an interrupt is being processed, but I've never heard of that being needed, anyway. The important thing is that the peripheral will only see an active IORQ when the computer is requesting I/O. This is the (incorrect) assumption that the peripheral designer made, in the first place.

The "Kludge board" should pass every signal straight through from the computer to the peripherals, except for IORQ. Instead, IORQ should be bridged by a gating circuit. A typical such circuit might look like this:



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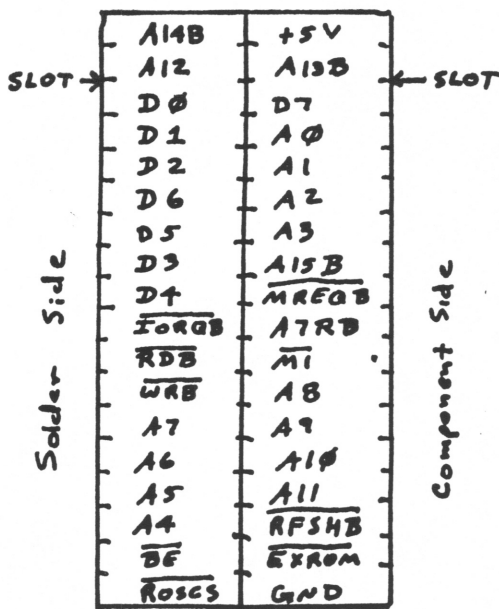
Circulation is 125 copies per month to Sinclair computer users, with only a dozen copies going to companies.

If you are going to build this circuit, you might put the seven pull-up resistors on the same board. (One side goes to a data line, the other to +5 volts).

It's not too difficult to add the resistors to an EMU-1 or an early Omni Emu. (Say that fast, five times.) First remove the chips noting which way they plug in. Each data line fortunately passes through the board, giving a convenient point to install the resistors. Trace the lines up from the proper connector pads to find these points. The +5 volt line is a fairly wide printed circuit trace, so the other sides of the resistors may easily be soldered on top of it. The resistors should be 1/4 watt, or they won't fit. Before you solder in the first resistor, place a small piece of cardboard underneath the resistor area. This way, none of the leads will not accidentally short to the printed circuit lines below.

Note that the older EMU-1 doesn't have plated through holes. Signals are passed through the board by a small piece of wire, soldered in from both sides. You'll have to remove the solder with a solder wick and then take out the wire. After inserting the resistor, you'll have to solder it on both sides of the board. As with any printed circuit board, you'll have to work quickly, or the heat from the soldering iron will cause the printed circuit lines to peel away from the board. If your soldering skills aren't up to snuff, you might want to get some more practice, first.

If you have a Spectrum ROM installed on the 2068 board, or a ROMSwitch or equivalent, you might choose to install the resistors on a blank cartridge board. John Oliger sells a blank EPROM board that can be perverted for this purpose. Write him a 11601 Whidbey Dr, Cumberland, IN 46229, for current prices. Again, you trace the proper edge connector pads up to a suitable spot on the board. The following are signal pins of the cartridge connector. Note that this picture shows the signals as we face the female connector not the board!



Cartridge Slot Connections  
(Facing the female connector)

In closing, it should be pointed out that there's still a glaring difference between the TS2068 and the Spectrum. The Spectrum takes 3 and a third milliseconds longer between interrupts, and if a program needs this extra time, we're just out of luck. I've not seen such a program yet, but it's conceivable that such exist; particularly in "simulation" programs.

I'd like to thank Doug Dewey of the Triangle Sinclair User's Group for contributing lots of hardware, and equally valuable ideas. I'd also like to thank Bob Dyl of English Micro Connection for making a number of "unrunnable" Spectrum programs available to me. (E.M.C. is an absolutely super source of Spectrum products, and what Bob doesn't have, he'll get for you.) Without help from both of these gentlemen, this article wouldn't have been written.

If anyone has any questions or comments, please feel free to write to me:  
Wes Brzozowski  
337 Janice Street  
Endicott, NY 13760

Please enclose a stamped, self addressed envelope, if you'd like a reply. The truly anxious are welcome to call me at (607) 785-7007. Please don't call collect and call before 9:00 P.M. Eastern Time. I'd be glad to hear from you.

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We will exchange newsletters, but we will terminate the exchange if we do not receive some correspondence in return every ninety days - this applies to commercial businesses receiving this news letter. We urge commercial businesses to become corresponding members.

Any and all correspondence, articles, and advertisements should be submitted to:

Gary Ennis, Editor  
SINCUS NEWS  
P.O. Box 523

Owego, New York 13827

Normal deadline is the SINCUS Executive Committee meeting.

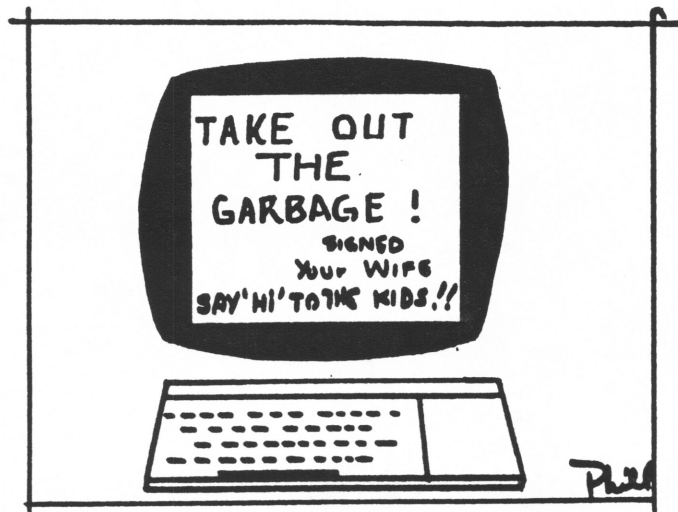
### MEMBERSHIP INFORMATION

Regular fulltime memberships are normally due in the month of July. The annual rate for a regular membership is \$8.00/year. The annual rate is prorated to the following July (.67 /month).

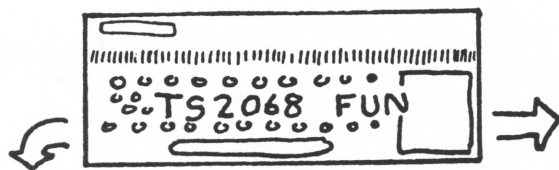
Corresponding memberships are \$8.00 per year-you will receive 12 issues of the SINCUS NEWS.



# TIME ~~X~~<sup>ly</sup> TIPS



Thanks to Paul Hill, SINCUS



```

5 GO TO 900
10 PRINT #1;"This is printed i
n the lower part of the scree
n": PRINT AT 10,10;"Press ANY ke
y!": PAUSE 0
15 RETURN
20 INPUT AT 22,0;AT 0,0;"What
is your name? "; LINE a$;AT 10,0
;"What is your age, ";(a$);" ";a
;AT 15,0;(a$);"s age is ";(a);A
T 20,0;"Press ENTER to continue"
;b$
25 RETURN
100 IF INKEY$="" THEN GO TO 100
105 LET z$=INKEY$: RETURN
900 CLS : PRINT AT 10,10;"Selec
t Menu #1 or #2";AT 13,5;" 1 Pr
int in bottom 2 lines";AT 15,5;"
2 Locate INPUTS": GO SUB 100
905 IF z$<"1" OR z$>"2" THEN BE
EP .5,5: GO TO 900
910 CLS : GO SUB 10*VAL z$: GO
TO 900
915 STOP
    
```

```

9000>REM User Defined Graphics
TS 2068 - Gary Ennis
SINCUS, PO 523, Owego, NY
9005 FOR a=USR "a" TO USR "u"+7
9010 READ user: POKE a,user
9015 NEXT a
9019 RETURN
9020 REM "a"="*"
9021 DATA BIN 00001000,BIN 00011
100,BIN 01111111,BIN 00111110,BI
N 00011100,BIN 00110110,BIN 0010
0010,BIN 00000000
9025 REM "b"="→"
9026 DATA BIN 00000000,BIN 00000
000,BIN 00000100,BIN 00000010,BI
N 11111111,BIN 00000010,BIN 0000
0100,BIN 00000000
9030 REM "c"="←"
9031 DATA BIN 00000000,BIN 00000
000,BIN 00100000,BIN 01000000,BI
N 11111111,BIN 01000000,BIN 0010
0000,BIN 00000000
9035 REM "d"="↓"
9036 DATA BIN 00000000,BIN 00001
000,BIN 00001000,BIN 00001000,BI
N 00101010,BIN 00011100,BIN 0000
1000,BIN 00000000
9040 REM "e"="↑"
9041 DATA BIN 00001000,BIN 00001
000,BIN 00011100,BIN 00101010,BI
N 00101000,BIN 00101010,BIN 0001
1100,BIN 00001000
9045 REM "f"="●"
9046 DATA 60,126,255,255,255,255
,126,60
9050 REM "g"="*"
9051 DATA 24,60,60,24,60,36,0,0
9055 REM "h"="|"
9056 DATA 128,128,128,128,128,12
8,128,128
9060 REM "i"="—"
9061 DATA 255,0,0,0,0,0,0,0
9065 REM "j"="|"
9066 DATA 1,1,1,1,1,1,1,1
9070 REM "k"="|"
9071 DATA 16,16,16,16,16,16,16,1
6
9075 REM "l"="—"
9076 DATA 0,0,0,255,0,0,0,0
9080 REM "m"="●"
9081 DATA 24,60,126,255,255,126,
60,24
9085 REM "n"="●"
9086 DATA 24,60,126,255,255,90,2
4,60
9090 REM "o"="●"
9092 DATA BIN 00111100,BIN 01111
110,BIN 00111100,BIN 11111111,BI
N 11111111,BIN 01111110,BIN 0001
1000,BIN 00111100
9095 REM "p"="●"
9096 DATA 68,238,254,254,254,124
,56,16
9100 REM "q"="●"
9101 DATA 12,24,62,127,127,127,1
27,62
9110 REM "r"="●"
9111 DATA 65,62,73,73,127,20,28,
0
9115 REM "s"="●"
9116 DATA 56,56,16,124,16,16,40,
68
9120 REM "t"="◇"
9121 DATA 24,36,66,129,129,66,36
,24
9125 REM "u"="□"
9126 DATA 255,129,129,129,129,12
9,129,255
    
```

ARTICLE I - DUTIES OF OFFICERS

BY-LAWS

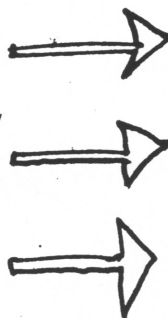
ARTICLE I - DUTIES OF OFFICERS

- §SEC I: The President shall preside at all meetings of the EXCOM and shall appoint all committees as provided in ARTICLE VII of the constitution. The President shall be a member ex-officio of all appointed committees.
- §SEC II: The Vice-President, in the absence of the President, shall perform the duties of the President, shall preside at the regular monthly meeting and arrange the meeting location, times and dates, set talk and demo schudule and advise media and members of same.
- §SEC III: The Treasurer shall maintain a checking account at a local bank in the Society's name . Advise EXCOM when balance exceeds \$500.
- §SEC IV: The Treasurer to sign checks at the direction of the EXCOM, and make a monthly statement to EXCOM or at the regular monthly meeting.
- §SEC V: The Treasurer shall deposit all funds as the EXCOM directs and shall disburse them only as the EXCOM directs. The Treasurer shall present a report at each regular meeting of the Society.
- §SEC VI: The Treasurer and Secretary shall keep separate accounts of all funds of the Society.
- §SEC VII: Order of succession of officers; President, Vice President, Treasurer, Secretary, Trustee #1,#2,#3.
- §SEC VIII: The Secretary shall keep an accurate record of all business transactions of regular and EXCOM meetings. The Secretary shall be responsible for all Society correspondence.
- § SEC IX: The Secretary shall maintain the membership rolls. The Secretary shall receive, record and turn over to the Treasurer all funds the Society collects.

- SEC I: The President shall preside at all meetings of the Society and of the EXCOM and shall appoint all committees as provided in ARTICLE VII of the constitution. The President shall be a member ex-officio of all appointed committees.
- SEC II: The vice-president, in the absence of the President, shall perform the duties of the President.
- SEC III: The Treasurer shall maintain a checking account at a local bank in the Society's name on which all current expenses are to be drawn. No more than \$250 may be held the account. Surplus amounts should be transferred in \$50 amounts into a savings account also in the Society's name at a local bank.
- SEC IV: All checks of the Society shall be signed by the President and the Treasurer. In the absence of the President, the Vice-president may sign instead of the President. Therefore, the President, Vice-president and the Treasurer will have their names on file with the local bank for the savings and checking accounts.
- SEC V: The treasurer shall deposit all funds as the EXCOM directs and shall disburse them only as the EXCOM directs. The Treasurer shall present a report at each regular meeting of the Society.
- SEC VI: The Treasurer and Financial Secretary shall keep separate accounts of all funds of the Society.
- SEC VII: Financial Secretary(FS) is responsible for notifying members of meetings. All members must keep their current postal address with the FS. Failure to comply relieves the FS of the responsibility to notify said members.
- SEC VIII: The Recording Secretary(RS) shall keep an accurate record of all business transactions of regular and EXCOM meetings. The RS shall be responsible for all Society correspondence.
- SEC IX: FS shall keep charge of membership rolls and report to the RS the number of members in good standing and the number in attendance. The FS shall receive, record and turn over to the Treasurer all funds the Society collects.

↑ ↑ ↑ ↑ ↑ ↑ ↑  
PROPOSED CHANGES

AS IT IS NOW →



At the March 20 meet the following were nominated for the upcoming elections, this May 15 Regular meeting 7pm, Chase/1st City Bank, Vestal Parkway, Vestal, NY):

- President - Gary Ennis
- Vice-President - John Sims
- Treasurer - Glenn Wilson
- † Financial Secretary - Wes Brzozowski
- † Recording Secretary - Paul Hill
- Trustees - Dave Schoenwetter  
Don Lamen

**NOMINATIONS**

← **MAY MEETING IS ELECTIONS!**

Nominations are still open to current members in good standing. If you wish, mail in a nomination. Mail-in ballots must be received prior to the May meeting. Ballot in next newsletter.

The following proposals were made by Paul Hill to amend the charter and society by-laws. Many of the changes are proposed to bring the charter around to the way we have settled in over the past two years of doing business, and the rest, ( † ) the combining of the secretarial positions into one to shorten the lines of communication and spread the work load among more members. The changes of most sections involves the removal of the terms Recording and Financial.

Following are the current charter sections that are under consideration for change. If no objection, all changes will be on one vote. Any changes to proposals will be published and voted on in May.

THE CONSTITUTION AND BY-LAWS OF THE SINCLAIR COMPUTER USERS' SOCIETY

† proposed amendments to charter and by-laws 3-20-85

ARTICLE IV - OFFICERS

ARTICLE IV - OFFICERS

SEC I: The officers of this Society shall be PRESIDENT, VICE PRESIDENT(VP), TREASURER, RECORDING SECRETARY(RS), SECRETARY(FS), and two (2) TRUSTEES. No member shall hold more than one office. the elected shall assume office on July 1, following installation.

†SEC I: The officers of this Society shall be PRESIDENT, VICE PRESIDENT(VP), TREASURER, SECRETARY, and three (3) TRUSTEES. No member shall hold more than one office. the elected shall assume office on July 1, following installation.

ARTICLE VIII - MEETINGS

ARTICLE VIII - MEETINGS

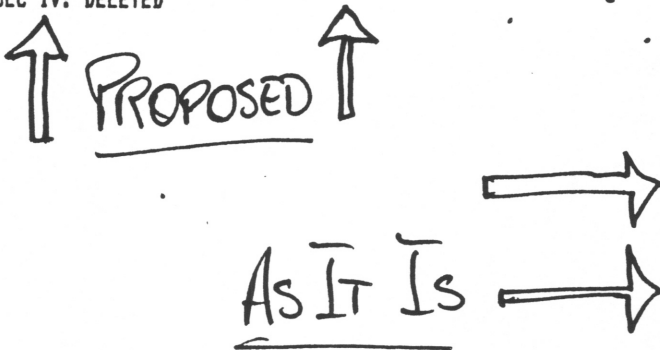
SEC III: Emergency snow conditions warrant cancellation of the meeting. The R S shall notify area radio stations of the cancelations. However, if such notifications fails to reach members, BE ADVISED THAT IF SNOW OR OTHER WEATHER CONDITION PERMIT ONLY EMERGENCY TRAVEL, THEN THE MEETING IS CANCELLED.

† SEC III: Emergency snow conditions warrant cancellation of the meeting. The Secretary shall notify area radio stations of the cancelations. However, if such notifications fails to reach members, BE ADVISED THAT IF SNOW OR OTHER WEATHER CONDITIONS PERMIT ONLY EMERGENCY TRAVEL, THEN THE MEETING IS CANCELLED.

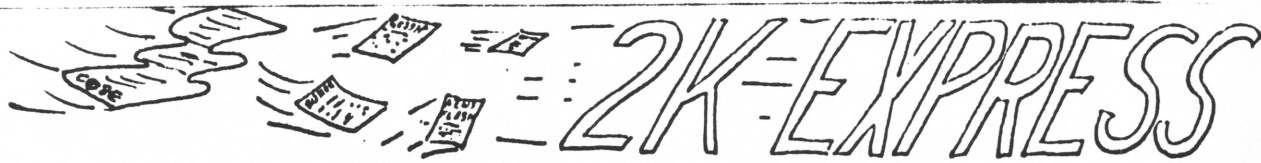
SEC IV: The order of business for regular meetings of this Society shall be as follows:

†SEC IV: DELETED

1. Call to order
2. Reading of the minutes.
3. Communications
4. Treasury Report
5. Financial S Report
6. Committee Reports
7. Unfinished business
8. Technical Reports, Demos, talks
9. New business
10. Adjournment







Compuserve ID # 74666,1246  
(697)687-0698 (modem)

by GARY ENNIS

P.O. Box 523  
Owego, New York 13827

EDIT #1 - I must apologize for not being able to mail SINCUS NEWS on time this month. A variety of things prevented me from meeting my normal deadline. Fortunately the events are happy ones and the delay actually worked to our advantage. The May meeting has been moved (details to follow). Had I mailed on time we would have announced the wrong meeting site! The good news for me is that I have been hired by the COMPUTER DOME at the Oakdale Mall (across from Arby's) to sell computers and teach my eight part course! I only had one week to get everything moved from the dry cleaners into my mobile home (which was not set up to accept the extra fish tanks, computers, chairs, books, and etc.) I left the dry cleaners at 5:30 PM on April 10 and reported to the COMPUTER DOME at 6:15 PM and have not had a day off since (today is the 16th). Between moving, car trouble, all the hours at work, and teaching two classes I just have been unable to get it done, despite some great help typing by Carl Morris and Paul Hill. The new job will make me more accessible and should be a great help in the future in conducting club business. You may reach me at the 'ore in the Mall by calling (607)729-9222 most days until 11:30 PM Eastern time.

NEW - the MAY meeting has been relocated. We will meet in the MICRO AGE STORE, 106 Washington Avenue, Endicott, NY. The program for that evening will be Ray Payne from KNIGHTED COMPUTERS, the otherside of Syracuse. Ray will be bringing the A&J Microdrives for the TS2068. He also has indicated that he has much exciting news about the TS2068-including their being licensed to "convert" Spectrum software to it. If you would like him to bring anything else for a demonstration, please call me (729-9222) and I will ask him to bring it. No doubt he hopes to do some business, but I see nothing wrong with that-we always complain that we have to buy sight unseen when we buy mail order-so now we can see it! So bring your check-book!

EDIT #2 - I recently read in a newsletter, which shall remain nameless, a listing of a program and a schematic of Wes' ARS/LROS circuit that had appeared in SINCUS NEWS. There was no mention of SINCUS NEWS as the source of the information! I am compelled to add my comments to those of Paul Hill's (see Secretary's Notes, this issue). First, permission to reprint is granted on the condition that SINCUS NEWS, PO Box 523, Owego, NY 13827 be identified as the source of the material. Failure to "label" the reprint as such revokes that permission. As a result, we are forced to issue this ultimatum -any publication that reprints something from SINCUS NEWS without identifying the source will be dropped from our exchange list! This is not an ego trip on my part, we want the club recognized as a source of solid information! Secondly, it is unfair to the

reader to not know where the article comes from-after all the reader may have some additional information to pass on to the author. So, editors, please reprint anything you desire as we do offer it without copyright. But please recognize SINCUS as the source. Also, send us an extra copy of the issue in which the reprint appears. I give that to the author. They do love the recognition! Besides they can show it to their wife to prove that someone reads their work, thus reducing static at home long enough for them to write another article!!

SAVE - your version of CLONE and bring it to the next meeting to be exchanged for CLONE, Version 3.0. Several improvements have been made by Wes in the version that was originally sold to local club members. Please do make the exchange as the earlier version has proved to be unreliable!! This offer is available ONLY to local regular members of SINCUS as we want a chance to maintain control. This is a testing of the product which we will be offering to software/dealers for distribution and sale. We will not be filling orders for non-local people so if you have sent money it will be returned to you. I am sorry for the delay in getting this message out, but we only recently made this decision final.

THANKS - to Paul Hill for his efforts both in typing some of Wes' article and in printing the articles out PLUS hauling one car load of personal belongings from the dry cleaners to my mobile home.

NEW TOD - we will be returning to the Vestal Public Library as the site of our monthly meetings. We were able to line up the meeting dates for the remainder of 1985. We feel it is a bit more convenient to most people and there are no stairs!

THANKS TOD - to Dave Schoenwetter and Clyde Tackley for a job well done in demonstrating the modem setups at the April meeting. For those of you who missed it, they set up both Dave's "home made" modem and Clyde's Byte-Back modem. They demoed both the Aerco modem patch and Dave's buffer utility program that allows you to turn your full sized printer on and off and lets you save the buffer to tape. It was well done, but what happened to COMPUSERVE?

LOOKING AHEAD - I see much yet to be worked on in the world of Sinclair. We have an adequate modem program, but can we get a 1200 baud modem? TASWORD is slick, but can we save documents as an ASCII file (making it loadable into another computer's word processor through modems). How about a print buffer (and Dave Schoenwetter says its his next project-with two inputs, one for the TS2068 and one for his PC). We also have the TI keyboard for the TS1000/ZX-81 to be attached! So come on out and watch us complete these projects!